

ALL IN ONE MODULAR SOLUTION

MRK16 is a modular wireless-microphone receiver system that fit up 16 channels in a compact 19" 1RU alluminium chassis. It accepts up to 4 MCR54 receivers, providing antenna distribution, RF filtering and advanced audio routing (analogue, AES3 and Dante).



Channels

Up to 16 true diversity channels in a compact 19" 1U rack (4x MCR54)



**Multi-BAND
RF**

Ultra wideband receiver system from 470 to 1260 MHz equipped with 10 automatically selected band-pass filters



**RF over
Fiber**

For reception without distance limits! The fiber module EXP2 allows to replacement of coaxial cable and antennas located miles away.



**Versatile
connectivity**

Multiple audio outputs:
-Digital (AES72&AES59)
-Dante (primary&secondary)
-Analog (2xDB25 Tascam wiring)



**Dual Area
Matrix**

To select and combine 2 diversity zones. Antenna booster and remote control of Wisycom LFA/ADFA.



**Bluetooth 5
Long Range**

Class 1 (100mW) remote control to connect Wisycom devices within a range of hundreds of meters.

OTHER FEATURES

- Daisy chain up to 4 racks for 64 channels in only 4U
- 5 ports manageable Gigabit Ethernet switch (ETH5 is connected to an internal SFP module for fiber data)
- Redundant (dual) power supply on XLR
- Dual Power Over Ethernet input and PoE output (PE1 optional)
- USB-C connectivity with powering (1.5A)



ANTENNA MATRIX

- green when area is active
- red if RF overload
- off is area in not active

ANTENNA BOOSTER

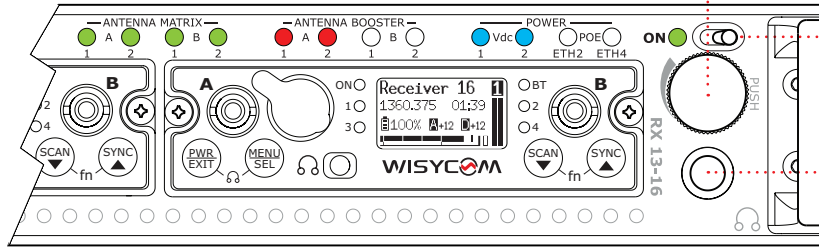
- green if booster on
- red if antenna fault
- off if booster off

POWER SUPPLY

- green if present
- blue if used
- red if voltage fault
- off if no power

ROTARY KNOB

- Rotate to adjust volume
- Short push to select RX
- Long push to enter MRK16 setup menu



On/Off SWITCH

AUDIO MONITORING
6.35 mm/1.4" plug mono

BACK PANEL CONNECTIVITY AND EXPANSION SLOT

Power Over Ethernet (PoE)

- Dual input (ETH2 & ETH4)
- Output (ETH1) to supply external device (i.e. Wifi)

Dual redundant DC power input:

- XLR-4M 9-28Vdc

USB-C

Control & Charging

Bluetooth 5

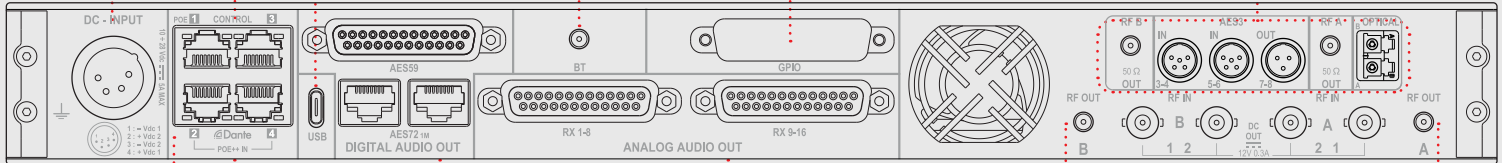
long range:
class 1 (100mW) remote control

GPIO

General purpose input/output (optional)

RF over Fiber expansion slot

Diversity reception of remote area thru singlemode optical fiber



Dual Dante
Primary & Secondary

AES3
AES59 (db25) & AES72 (dual cat5)

Analogue
Dual db25 (Tascam)

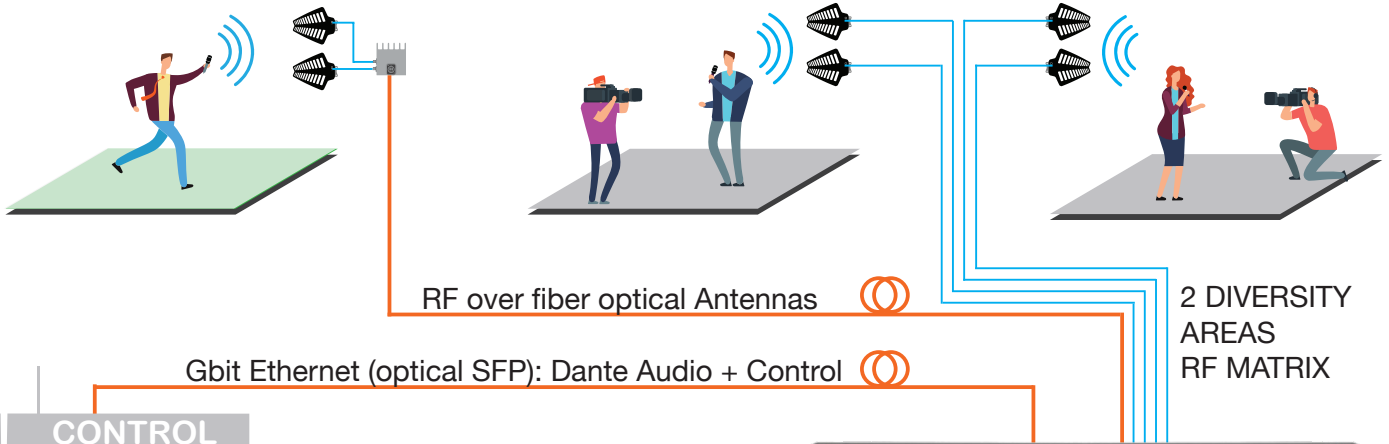
MULTIPLE AUDIO OUTPUTS

RF inputs/output

- Dual area diversity RF MATRIX: 2 discrete diversity zones selectable from front panel or in Wisycom Manager software
- Antenna booster & Antenna remote control (LFA/ADFA)
- Diversity cascade to connect up to 4 MRK16 (64 rx channels)

5 ports manageable Gbit switch:

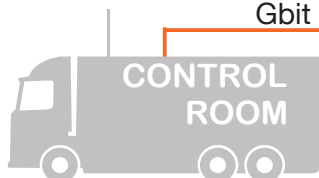
- ETH1/3 control
- ETH2/4 Dante audio
- ETH5 internal optical SFP slot



Gbit Ethernet (optical SFP): Dante Audio + Control

RF over fiber optical Antennas

2 DIVERSITY AREAS
RF MATRIX



CONFIGURATIONS

POE OPTION

PE1

Power Over Ethernet board:
- dual PoE++ input on eth 2/4 (redundant pwr supply)
- PoE output on ETH 1 (external Wifi, Bluetooth antenna)

EXPANSION BOARD OPTION

EX2

Expansion board version 2
(Zoning + Fiber)

GPIO OPTION

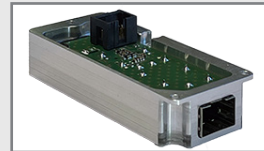
GP1

GPI ports (DB9 connector)

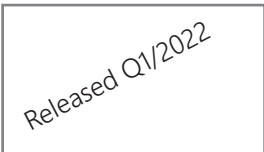
ACCESSORIES & RELATED



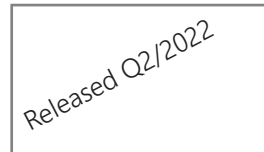
Item: EXP2
expansion board version 2
(Zoning + Fiber)



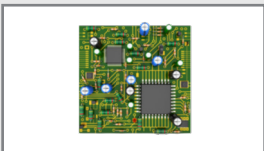
Item: MRK-SFP
it expands the internal switch with
SFP slot (1 Gigabit speed)



Item: BFLT1/BFLR1
Single Laser RF over Fiber transmit-
ter/receiver with selectable filter and
high power Bluetooth long range



Item: BFLT2/BFLR2
Dual Laser RF over Fiber transmitter/
receiver with selectable filter, antenna
control (LFA type), SFP socket and
high power Bluetooth long range



Item: POE1
Power Over Ethernet board:
- dual POE++ input on eth 2/4
- POE output on eth 1 (external Wifi,
Bluetooth antenna)



Item: BFA
Wide-band booster
with integrated filters
remote controlled
430-1260 MHz



Item: LFA
Directive Wide-band Active antenna
with integrated filters
remote controlled
410-1300 MHz



Item: LNNA2/LBNA2
Directive Wide-band Active antenna
470-960 MHz



Item: AL1265XF
AC/DC Power Supply with XLR-F
4-pin connector
Input: 90 ÷ 264 Vac
Output: 12V/5.8A
supplied by default with the rack



Item: CAL-xx
Power supply cable, 10A 250V 1,8mt
CAL-EU: with Shuko plug
CAL-UK: with UK plug
CAL-US: with USA plug




Item: TSC25
TASCAM cable
from DB25 to 8 XLR3-M



Item: CABS30
Antenna Cable: 30cm (12 inches) with
BNC-M/SMA-M connectors 50Ω for
MRK16 cascade or connection with
Fiber expansion board



TECHNICAL SPECIFICATIONS

| | | |
|-----------------------------|---|--|
| RF SPECIFICATIONS | Frequency ranges | 470 - 1260 MHz (full range) |
| | Filter selection | 10 automatically selected band-pass filters: 470-608 MHz 470-694 MHz 470-832 MHz 470-1260 MHz 510-608 MHz 510-694 MHz 510-832 MHz 510-1260 MHz 822-1260 MHz 940-1260 MHz |
| | Antenna connector | 4 x BNC type female connectors for inputs, 2 x SMA type female connectors for loop |
| | Antenna input impedance | 50 Ohm |
| | Spurious emissions | < 2 nW |
| | Input/output gain | 1dB ± 1 |
| | Input/cascade gain | 1dB ± 1 |
| | IP3 | 14 dBm |
| | Antenna booster powering | +12 Vcc / 300 mA MAX |
| | AUDIO | Analogue audio output |
| Digital audio output | | AES59 (DB25 connector) and AES72 1M (2 RJ45 connectors) |
| Dante output | | Dante Primary and Secondary (2 x 1000 Base TX RJ45 Ethernet) |
| Monitor output | | headphone 6.3 mm jack socket, volume adjustable with a front knob |
| OTHERS | LED | 4 LEDs indication for the zone activation status (red, green, off) 4 LEDs indication for the booster status (red, green, off) 4 LEDs indication for the power supply status (red, green, blue, off) 1 LED indication for the MRK16 status (green, off) |
| | Max number of receiver slots | 4 |
| | Max number of channels | 16 (with MCR54), 8 (with MCR54-DUAL) |
| | Managing interface | 2 x 1000 Base TX RJ45 Ethernet, Bluetooth 5 Long Range, USB-C and thru display menu of the 1st receiver on the right |
| | Powering | 10÷ 28 Vdc, 5A max, redundant DC Vdc1 and Vdc2 on XLR M-4pin  <ul style="list-style-type: none"> 1: -Vdc1 2: +Vdc2 3: -Vdc2 4: +Vdc1 |
| | Power consumption | PE1 option: Power Over Ethernet board: - dual POE++ input on eth 2/4 (redundant pwr supply) - POE output on eth 1 (external Wifi, Bluetooth antenna) |
| | Power supply output | 60W with 4 MCR54s and 4 active boosters |
| | Power supply output | on USB-C port to connect external device (e.g. tablet) 1.5 A max |
| | Temperature range | -10 ÷ +55 °C |
| | Dimensions | 44 x 483 x 352 mm (HxWxD) |
| Weight | 4.3 Kg. with 4 MCR54s and EXP2 board, 3.30 Kg. without MCR54s | |

